

**UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF NEW YORK**

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GENOA COLOR TECHNOLOGIES, LTD.,	)	
	)	
Plaintiff,	)	
	)	
v.	)	
	)	Civil Action No. 07-CIV-6233 (PKC)
MITSUBISHI ELECTRIC CORP.; MITSUBISHI	)	
ELECTRIC US HOLDINGS, INC.; MITSUBISHI	)	
ELECTRIC AND ELECTRONICS USA, INC.;	)	
MITSUBISHI DIGITAL ELECTRONICS	)	
AMERICA, INC.; SAMSUNG ELECTRONICS CO.,	)	
LTD.; SAMSUNG ELECTRONICS AMERICA,	)	
INC.,	)	
	)	
Defendants.	)	
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**THE SAMSUNG DEFENDANTS' CLAIM CONSTRUCTION SUR-REPLY BRIEF**

## I. INTRODUCTION

The Plaintiff, Genoa Color Technologies, Ltd. (“Genoa”), asks the Court to construe many of the claims of U.S. Patent No. 7,113,152 (“’152 patent”) not as they are written, but with various new terms that Genoa apparently wishes it had included in the claims. It is well-settled, however, that “courts may not redraft claims.” *Lucent Tech., Inc. v. Gateway, Inc.*, \_\_\_ F.3d \_\_\_, \_\_\_, 2008 WL 1970225 (Fed. Cir. May 8, 2008) (collecting citations). Genoa attempts to make the technology at issue seem as complicated as possible, and then asks the Court to simply defer to an unsupported expert opinion contending that terms like “plurality of,” “pixel,” “exactly three,” and “for every pixel in the input data” should be imported into the meaning of “color image,” “data signal,” and “converting.”

To resolve Genoa’s arguments about why these terms should be added to the patent’s claims, the Court need not go further than to apply *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (*en banc*): conclusory expert declarations receive no weight, *id.* at 1318, and a “special definition” should only be adopted if the “specification . . . reveal[s] a special definition” or demonstrates an “intentional disclaimer,” *id.* at 1316. The ’152 patent contains no such special definitions. In fact, the inventors unsuccessfully sought to patent many of the terms they now seek to add. Each of the terms at issue should be construed in accordance with its readily-understood meaning in view of the claim language, specification, and prosecution history.

## II. CONSTRUCTION OF THE CLAIM TERMS

### A. “color image”

Genoa’s reply brief all but concedes that Defendants’ definition of “color image,” an “image comprised of at least one color,” captures the understanding of a person of ordinary skill. There is no specialized definition of “color image” in the specification. The ’152 patent

addresses a “method for producing a color image,” Bieluch Decl., Ex. A, ’152 patent, claim 1, not a method for producing a particular kind of color image, and its claims speak only of producing a “color image.” *See* Br. at 8-13.

Genoa advances only one reason in its reply brief to depart from the ordinary meaning of “color image” and adopt its proposal that a “color image” must have at least four colors. Genoa argues that because claim 1 of the ’152 patent speaks of “*spatially modulating* said light of at least four colors,” the “color image” produced by the ’152 patent must be an image of four or more colors. Not so. As explained in Defendants’ technology tutorial, spatial modulation simply involves sending some light toward a display screen and some light away from a display screen and into a light absorber. To display a red ball, light of the color red is spatially modulated toward a display screen, and light of other colors is spatially modulated away. *See* Br. at 9. The resulting image is a single-color color image. The same is true with respect to a color image composed, for example, of red and blue. Looking past Genoa’s reply brief, the declaration of Genoa’s expert, Dr. Silverstein, essentially acknowledges that this is how a color image is produced by the ’152 patent. *See* Supp. Decl. of Louis D. Silverstein at 4 (some of the values of each color can “assume the *value of zero*,” meaning that light of those colors will not be displayed on a display screen). The color image that results from spatial modulation can have anywhere from only one of the colors on the color wheel to as many colors as are on the color wheel.

Genoa also continues to argue that “pixels” should be imported into the definition of “color image,” although Genoa’s brief does not refute Defendants’ position that “plurality” should not be added to the definition of “color image.” These are both terms, however, that the inventors disclaimed at the PTO. In the parent application of the ’152 patent, now issued as U.S.

Patent. No. 6,870,523, the inventors expressly claimed a “*plurality of groups of pixels*,” with each group including “*four*” pixels, and with each pixel corresponding to one primary color.<sup>1</sup> In a rejection issued on April 24, 2002, the PTO Examiner objected to the drawings submitted with the patent application because they did not show the “plurality of groups of pixels” limitation. *See* Suppl. Bieluch Decl., Ex. J at 2. In response, the inventors cancelled all pending claims, and entered new claims that did not once use the term “pixel.” *See id.*, Ex. K at 2. Similarly, in the ’152 patent application, the inventors at one point amended their claims to again expressly claim the term “pixel,” *see id.*, Ex. L at 8, 11-12, but they later cancelled those claims and entered new claims that did not contain a single reference to “pixel,” *see id.*, Ex. M at 2. Genoa cannot now retroactively amend its claims to claim precisely that which it was not able to patent before.

#### **B. “data signal”**

As noted in Defendants’ topside brief, “data signal” is a term that was added by the PTO to claim 1 with nothing to indicate a specialized meaning, and is now a term to which Genoa seeks to attribute a very particularized definition, by adding terms like “plurality of,” “pixels,” “exactly three component values,” and “RGB, XYZ, YCC” to its meaning. *See* Br. at 13-17. In its reply brief, Genoa offered no response to the vast majority of the numerous inconsistencies and problems that Defendants noted Genoa’s definition would create.<sup>2</sup>

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<sup>1</sup> For example, the inventors claimed in claim 3 “[t]he device of claim 2 wherein said viewing screen features a *plurality of groups of pixels*, each group of *pixels* including at least *four pixels*, each *pixel* corresponding to a primary color.” Suppl. Bieluch Decl., Ex. I at 33 (emphasis added).

<sup>2</sup> *See, e.g.*, Br. at 14 (the inventors knew how to distinguish between “three-color data,” which they sought to patent in claim 8, and the broader term “data signal,” used elsewhere); *id.* at 14-15 (Genoa’s proposed construction violates the doctrine of claim differentiation); *id.* at 15 (Genoa’s construction is inconsistent with the specification); *id.* at 16 (“data signal” was added to claim 1 by the examiner).

### C. “converting”

The ’152 patent discloses only one method of converting from three-color data to image data representing an image in terms of four or more colors, which requires partitioning the color gamut into non-overlapping triangles. *See* ’152 patent, col. 14, l. 33 - col. 15, l. 52; *id.* at col. 16, l. 65 - col. 17, l. 2; FIGs. 3B, 6A-7; *see also* Shanley Decl. ¶¶ 22-23.

Citing the bracketed text below, Genoa looks to lines 61-63 of column 16 of the ’152 patent in arguing that “the specification provides that the partitioning method was only one *possible* conversion method.” Genoa’s Reply Br. at 5 (emphasis added). Unfortunately, Genoa did not cite nearly enough:

[The method described above is only one possible way to transform the RGB data to a format suitable for a display with at least four colors.] *In particular*, regarding the detailed procedure, it is not essential to include white light points among the color points. *The procedure only requires the definition of a set of triangles*, which are based on the existing primaries and any set of additional colors, which preferably can be composed from the other primaries.”

’152 patent, col. 16, l. 61 - col. 17, l. 1 (emphasis added). In other words, transforming RGB data into four-or-more color data *requires* the definition of a set of triangles.

Genoa mentions “look-up table[s]” and “interpolation” as other “conversion methods” disclosed in the ’152 patent. This argument is specious. A look-up table itself is not a separate conversion methodology, but rather the *result* of one. It does nothing more than display pre-determined conversions. *See* Suppl. Decl. of James F. Shanley ¶ 3. A child’s multiplication table, printing the *results* of various calculations, provides an apt comparison. A look-up table displays the *results* of conversion by partitioning the color gamut. Likewise, “interpolation” within a look-up table is similarly just a short-cut for displaying the results of conversion by partitioning the color gamut. *See id.*

Finally, Genoa's expert now identifies "spectral analysis" as another method for converting. Spectral analysis is a red herring. The method that Genoa purports to have invented is partitioning the color gamut. *See id.* ¶ 5. Genoa's own expert acknowledges that partitioning the color gamut, as opposed to spectral analysis, is the method he believes "was novel at the time of the invention for the '152 patent." Supp. Silverstein Decl. at 8. Moreover, a person of ordinary skill reading claims 8-10 would not understand "converting" to be referring to spectral analysis, as spectral analysis is a specialized, cumbersome process for determining which multi-primary colors to use on a color wheel for film images. *See* Supp. Shanley Decl. ¶ 6. The claims of the '152 patent are directed to using a single, unchanging light source that can be used to display through a spatial light modulator (*e.g.*, a DMD) a wide variety of color images from DVDs, videotapes, and live television. *See id.* Additionally, a person of ordinary skill would not understand the three-to-four color conversion process described in claims 8-10 as being directed toward spectral analysis. *Id.* Thus, Genoa is incorrect to argue that the '152 patent discloses spectral analysis as another method of "converting" for the steps of claims 8-10.

Respectfully submitted,

/s/ Richard L. Rainey

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Dated: June 4, 2008  
 Washington, DC

**CERTIFICATE OF SERVICE**

I hereby certify that all counsel of record who have consented to electronic service are being served with a copy of: (1) this document; (2) the Supplemental Declaration of James F. Shanley, Ph.D., in Support of the Samsung Defendants' Claim Construction Sur-Reply Brief; and (3) the Supplemental Declaration of Brian G. Bieluch in Support of the Samsung Defendants' Claim Construction Sur-Reply Brief, and its accompanying exhibits, via the Court's CM/ECF system on this the 4th day of June 2008. Any other counsel of record will be served by first class U.S. mail on the same date.

/s/ Brian G. Bieluch

Brian G. Bieluch